

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the instant application:

Listing of Claims:

1. (Currently amended) A method of increasing tissue oxygenation in mammals, comprising applying a superoxygenated composition of oxygen microbubbles consisting essentially of oxygen in a pharmaceutically acceptable vehicle directly to a tissue surface selected from the group consisting of skin and mucous membranes for a time sufficient to increase the subepithelial partial oxygen pressure at least about 2 mm beneath the tissue surface from about 30% to about 120% above baseline pO_2 .

2. (Original) The method of claim 1 wherein the mammal is a human.

3. (Cancelled)

4. (Original) The method of claim 1 wherein the tissue is affected by a medical condition.

5. (Currently amended) The method of claim 4 wherein the medical condition is selected from the group consisting of bedsores, wounds, [[burns]] burns, and ulcers.

6. (Original) The method of claim 4 wherein the medical condition is a bacterial infection.

7. (Original) The method of claim 6 wherein the bacterial infection is identified as an anaerobic pathogen bacterial infection.

8. (Cancelled)

9. (Cancelled)

10. (Currently amended) The method of claim 1 wherein the ~~level of~~ oxygen in the superoxygenated composition ~~[[is]] has a concentration~~ from about 45 ~~[[ppm]] parts per million~~ oxygen to about 220 ~~[[ppm]] parts per million oxygen~~.

11. (Original) The method of claim 1 wherein the superoxygenated composition is at about 0°C. to about 34°C.

12. (Cancelled)

13. (Previously presented) The method of claim 1 wherein the pharmaceutically acceptable vehicle comprises water.

14. (Previously presented) The method of claim 1 wherein the oxygen microbubbles are between about 2 μ and about 10 μ in diameter.

15. (Previously presented) The method of claim 1 wherein the microbubbles are between about 0.6 μ and about 5 μ in diameter.

16. (Previously presented) The method of claim 1 wherein the superoxygenated composition is applied under agitation.

17. (Original) The method of claim 16 wherein the agitation is provided in a whirlpool bath.

18. (Currently amended) The method of claim 1 wherein the pharmaceutically acceptable vehicle allows the superoxygenated composition to be administered [[is]] in the form of a cream, lotion or gel.

19. (Original) The method of claim 1 wherein the composition is applied by soaking, immersion, spraying, rubbing or aerosols.

20. (Withdrawn) A method of increasing tissue oxygenation in mammals, comprising direct application of a superoxygenated composition of oxygen microbubbles consisting essentially of oxygen in a pharmaceutically acceptable vehicle to an exposed or removed mammalian organ to increase the tissue oxygenation.

21. (Withdrawn) The method of claim 20 wherein the pharmaceutically acceptable vehicle comprises water.